

**REMARKS**

Applicant hereby traverses the outstanding rejections and request reconsideration and withdrawal in view of the remarks contained herein. Applicant has amended Figure 1. Applicant has canceled claims 4, and amended claims 1 and 12. Claims 1-3, 5, and 6-12 are pending in this application.

**Objection to the Drawings**

The Examiner has objected to Figure 1 as showing only that which is old without being labeled "Prior Art". Applicant has submitted an amended Figure 1 to add the legend "Prior Art". In view of the amendments, Applicant would respectfully request that the objection to the drawings be withdrawn.

**Objection to the Claims**

Applicant has amended claim 1 to recite the creation of a finite impulse response filter, as suggested by the Examiner. Claim 12 has been amended to provide antecedent basis where indicated by the Examiner and to clarify step g) in accordance with the Examiner's suggestion. In view of the amendments, Applicant would respectfully request that the objection to the Claims be withdrawn.

**Rejection under 35 U.S.C. § 112, second paragraph**

Claims 1-5 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite. The Examiner states that in claim 1, the steps c), d), and e), taken together, are unclear and indefinite because one skilled in the art is unable to determine a clear and definite limitation provided by each step in view of the remaining steps. Applicant has amended claim 1 to clarify the steps cited by the Examiner. Applicant believes that the recitation of claim 1, as amended, is clear. In view of the foregoing remarks, Applicants respectfully request the rejection of claims 1-5 under 35 U.S.C. § 112, second paragraph be withdrawn.

**Rejection of Claims 1, 3, 8, 10 and 15 under 35 U.S.C. § 102**

Claims 6-11 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Number 6,175,591 to Iwamatsu,, (hereinafter "Iwamatsu"). It is well settled that to anticipate a claim, the reference must teach every element of the claim, see M.P.E.P. § 2131.

Moreover, in order for a prior art reference to be anticipatory under 35 U.S.C. § 102 with respect to a claim, “[t]he elements must be arranged as required by the claim,” see M.P.E.P. § 2131, citing *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). Furthermore, in order for a prior art reference to be anticipatory under 35 U.S.C. § 102 with respect to a claim, “[t]he identical invention must be shown in as complete detail as is contained in the . . . claim,” see M.P.E.P. § 2131, citing *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913 (Fed. Cir. 1989). Applicants respectfully assert that the rejection does not satisfy these requirements.

The Examiner has used Figure 4 of Iwamatsu to reject claim 6. Specifically, the Examiner has identified element 25a-1 of Figure 4 in Iwamatsu as corresponding to the first signal path, element 25b-1 as corresponding to the second signal path, element 25a-2 as corresponding to the third signal path, and element 25b-2 as corresponding to the fourth signal path. Claim 6 explicitly requires summing means for adding the first and second signal paths and summing means for adding the third and fourth signal paths. These elements are not present in the rejection of record by the Examiner. The rejection of record, using the cited elements of Figure 4 from Iwamatsu, shows elements 25a-1 and 25b-2, or the first and fourth signal paths, being summed, and elements 25b-1 and 25a-2 being summed or the second and third signal paths. As the rejection of record does not show the summing means described in claim 6, all elements of claim 6 are not described in Iwamatsu, as set forth in the rejection of record.

Claims 7-11 depend directly from base claim 6, and thus inherit all limitations of the base claims. As such, claims 7-11 set forth features and limitations not recited by Iwamatsu.

For the reasons set forth above, Applicants respectfully assert claims 6-11 are patentable over the 35 U.S.C. § 102 rejection.

### **Rejection under 35 U.S.C. § 103**

Claims 1 and 5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwamatsu. Applicant has amended claim 1 to include the limitations of claim 4. Applicant will therefore discuss claim 1, as amended, in the context of the rejection of claim 4, set forth below. Claim 5 depends from claim 1 and thereby inherits all the limitations of claim 1. As

claim 5 is rejected as obvious solely in view of Iwamatsu, and Iwamatsu lacks all the limitations of claim 1 as discussed below, claim 5 allowable over the rejection of record for at least the reason set forth with respect to claim 1 below.

Claims 2 and 3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwamatsu in view of U.S. Patent Number 5,857,004 to Abe (hereinafter "Abe"). Claims 2 and 3 depend from claim 1 and thereby inherit all the limitations of claim 1. As set forth below Iwamatsu does not teach all the limitations of claim 1 and Abe is not relied upon as disclosing these limitations. Therefore the combination cited by the Examiner against claims 2 and 3 does not teach all of the limitations of the invention as set forth in claims 2 and 3. Claims 2 and 3 are allowable, therefore, over the rejection of record for at least the reason set forth with respect to claim 1 below.

Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwamatsu in view of U.S. Patent Number 5,781,589 to Yom (hereinafter "Yom").

To establish a *prima facie* case of obviousness, three basic criteria must be met, see M.P.E.P. § 2143. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Without conceding the second or third criteria, Applicant respectfully asserts that there is no proper motivation to combine the referenced teachings.

The Examiner states that Yom teaches that the equalizer for correcting impairments of the system, detects and corrects the received signal magnitudes with respect to the frequency band of the received signals by a slope equalizer or filter. Therefore it would have been obvious to perform the method of generating a filter of Iwamatsu in view of the magnitude slope vs. frequency correction as taught by Yom because the magnitude of the received signal could be compensated to overcome the defects which are induced by the transmission system.

It is well settled that the fact that references can be combined or modified is not sufficient to establish a *prima facie* case of obviousness, M.P.E.P. § 2143.01. The language

used by the Examiner is conclusory, merely a statement that the reference can be modified, and does not state any desirability for making the modification, nor does the Examiner explain why one would add the frequency correction of Yom to Iwamatsu, as Iwamatsu does not disclose a need for frequency correction.

Iwamatsu discloses a radio receiving apparatus which receives an analogue signal over an antenna. That signal is converted into two base band signals, I channel and Q channel, which are then converted from analogue to digital, sent through automatic gain control (AGC) circuits and then to a transversal equalizer. See, Figure 2. The transversal equalizer is used to eliminate transmission path distortion in the I and Q channels introduced by the analogue elements of the apparatus, shown as element 22 in Figure 2. Column 2, lines 1-13. Yom, conversely, is a slope detector in a digital radio system, and provides an output that is indicative of the slope of the passband signal spectrum. See, Abstract. As Yom is used in a purely digital system, it is not designed to correct for errors introduced by analogue transmission path distortions such as those incurred between an analogue antenna and A/D converters, represented by element 22 in Figure 2 of Iwamatsu. Iwamatsu's transversal equalizer which, as stated, corrects for signal path distortions caused by analogue elements, would have no use for the slope detector of Yom.

Further, the Examiner states that it would be obvious to use the correction of Yom "because the magnitude of the received signal could be compensated to overcome the defects which are included in the transmission system". The Applicant respectfully traverses the characterization by the Examiner. Iwamatsu does not need the "magnitude of the received signal" compensated to overcome defects. In fact, Iwamatsu includes automatic gain control circuits before the transversal filter which control the magnitude of the signal before it reaches the transversal filter, to which the Examiner attempts to add the teachings of Yom.

Obviousness can only be established by combining or modifying the teaching of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves, or in the knowledge generally available to one skilled in the art. M.P.E.P. § 2143.01. There is no suggestion in Iwamatsu that suggests the need for the slope detector of Yom. Nor is there any suggestion in Yom that it could be used to correct errors in an analogue transmission path

such as that shown in Iwamatsu. Therefore, the prior art combination put forth by the Examiner does not suggest the desirability of the claimed invention. Further, even if one could insert the slope detector of Yom into the transversal equalizer of Iwamatsu, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990), as cited in M.P.E.P. § 2143.01. Therefore, the motivation provided by the Examiner, is improper, as the motivation must establish the desirability for making the modification.

For the reasons described above, the Examiner's combination of Iwamatsu with Yom is improper because there is no motivation in either reference to make the combination. As a result, Applicants respectfully request that the Examiner withdraw the rejection of claim 1, as amended by adding the limitations of claim 4, based on the combination of Iwamatsu and Yom.

### **Conclusion**

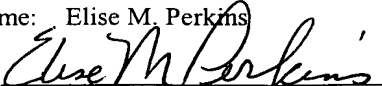
In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue

Applicant believes no fee is due with this response. However, if a fee is due, please charge Deposit Account No. 50-1078, under Order No. 10992825-1 from which the undersigned is authorized to draw.

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Date of Deposit: December 22, 2004

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Attachments

**AMENDMENTS TO THE DRAWINGS**

The attached sheet of drawings includes changes to Figure 1 designating Figure 1 as “Prior Art”.